

## **AMENDMENTS TO THE CLAIMS**

The listing of claims will replace all prior versions and listings of the claims in the application.

### **LISTING OF CLAIMS**

1. (Original) An amplification primer pair comprising an oligonucleotide anchor and primer, said anchor having a nucleic acid chemistry which is not a substrate for reverse transcriptases or DNA polymerases, and/or having a 3'-end which is not capable of priming nucleic acid synthesis;

wherein said primer has a nucleic acid chemistry that is a substrate for reverse transcriptases or DNA polymerases; and

wherein said anchor and said primer each include a region of complementary nucleotides which readily associate with each other to form a stem structure in the absence of a target nucleic acid, wherein the stem structure includes a region which is complementary to a universal primer.

2. (Original) The primer pair of Claim 1, wherein said anchor sequence and said stem regions are connected by a flexible linker.

3. (Original) The primer pair of Claim 2, wherein said flexible linker is selected from the group consisting of polyethylene glycol, polypropylene glycol, polyethylene, polypropylene, polyamides and polyesters.

4. (Original) The primer pair of Claim 1, wherein said primer comprises a tail region which extends beyond the length of said stem region of said anchor.

5. (Original) The primer pair of Claim 1, wherein said primer comprises one or more modified bases.

6. (Original) The primer pair of Claim 1, wherein said anchor comprises one or more modified backbone linkages.

7. (Original) The primer pair of Claim 1, wherein said anchor and said primer are each between 6 and 24 bases in length.

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8. (Original) The primer pair of Claim 1, further in association with a universal primer which is complementary to a region of said stem structure.

9. (Original) A sequencing primer pair comprising an oligonucleotide anchor and primer, said anchor having a nucleic acid chemistry which is not a substrate for reverse transcriptases or DNA polymerases, and/or having a 3'-end which is not capable of priming nucleic acid synthesis;

wherein said primer has a nucleic acid chemistry that is a substrate for reverse transcriptases or DNA polymerases; and

wherein said anchor and said primer each include a region of complementary nucleotides which readily associate with each other to form a stem structure in the absence of a target nucleic acid.

10. (Original) The primer pair of Claim 9, wherein said stem structure includes a region which is complementary to a universal primer.

11. (Original) The primer pair of Claim 10, wherein said anchor sequence and said stem region are connected by a flexible linker.

12. (Original) The primer pair of Claim 11, wherein said flexible linker is selected from the group consisting of polyethylene glycol, polypropylene glycol, polyethylene, polypropylene, polyamides and polyesters.

13. (Original) The primer pair of Claim 10, wherein said primer comprises a tail region which extends beyond the length of said stem region of said anchor.

14. (Original) The primer pair of Claim 9, wherein said primer comprises one or more modified bases.

15. (Original) The primer pair of Claim 9, wherein said anchor comprises one or more modified backbone linkages.

16. (Original) The primer pair of Claim 9, wherein said anchor and said primer are each between 6 and 24 bases in length.

17. (Original) The primer pair of Claim 9, further in association with a universal primer which is complementary to a region of said stem structure.

18-49. Canceled

50. (New) A kit comprising a primer pair of any one of Claim 1.

51. (New) A kit comprising a primer pair of Claim 2.
52. (New) A kit comprising a primer pair of Claim 3.
53. (New) A kit comprising a primer pair of Claim 4.
54. (New) A kit comprising a primer pair of Claim 5.
55. (New) A kit comprising a primer pair of Claim 6.
56. (New) A kit comprising a primer pair of Claim 7.
57. (New) A kit comprising a primer pair of Claim 8.
58. (New) A kit comprising a primer pair of Claim 9.
59. (New) A kit comprising a primer pair of Claim 10.
60. (New) A kit comprising a primer pair of Claim 11.
61. (New) A kit comprising a primer pair of Claim 12.
62. (New) A kit comprising a primer pair of Claim 13.
63. (New) A kit comprising a primer pair of Claim 14.
64. (New) A kit comprising a primer pair of Claim 15.
65. (New) A kit comprising a primer pair of Claim 16.
66. (New) A kit comprising a primer pair of Claim 17.
67. (New) A composition for amplifying a target nucleic acid sequence, comprising a forward anchor (FA), a forward primer (FP), a reverse anchor (RA), and a reverse primer (RP), wherein said FA and said FP self-assemble to form a first oligonucleotide-primer pair (FA/FP) and said RA and said RP self-assemble to form a second oligonucleotide-primer pair (RA/RP) via association of their complementary stem regions, and wherein each of said oligonucleotide-primer pairs comprises target nucleic acid sequence regions that hybridize to said target nucleic acid sequence or its complement.
68. (New) The composition of Claim 67, further comprising a forward universal primer (FUP) and a reverse universal primer (RUP), wherein said FUP is complementary to the FA/FP stem region and said RUP is complementary to the RA/RP stem region.
69. (New) A kit comprising the composition of Claim 67.
70. (New) A kit comprising the composition of Claim 68.
71. (New) A method for amplifying a target nucleic acid sequence, comprising the steps of:

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combining with a target nucleic acid sequence the composition of Claim 67; and  
amplifying said nucleic acid sequence via enzyme-mediated amplification.

72. (New) A method for amplifying a target nucleic acid sequence, comprising the steps  
of:

combining with a target nucleic acid sequence the composition of Claim 68; and  
amplifying said nucleic acid sequence via enzyme-mediated amplification.

73. (New) A method for amplifying a target nucleic acid sequence, comprising:  
providing the amplification primer pair of claim 1 comprising a first target binding region  
configured to bind to a first end of said target nucleic acid sequence;  
providing an additional primer configured to bind a second end of said target nucleic acid  
sequence; and  
incubating said primer pair and said additional primer in the presence of said target  
nucleic acid sequence under conditions that amplify said target nucleic acid.

74. (New) The method of Claim 73, further comprising providing a universal primer that  
is complementary to said stem structure of said amplification primer pair.